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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

COHEN, AMY R

ART UNIT

PAPER NUMBER

2859

DATE MAILED: 08/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/940,363

Applicant(s)

SAKSA, THOMAS A.

Examiner

Amy R Cohen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 30'. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities:

Page 5, lines 21-22, Specification language "Example embodiments of positional sensing assembly 30 are described below with reference to Figures 3 and 4" is confusing because reference number 30 is not in either Fig. 3 or 4.

Suggested correction is --with reference to numbers 32 and 34 of Figures 3 and 4.--

Appropriate correction is required.

Claim Objections

3. Claims 7, 18, and 27 are objected to because of the following informalities:

Line 2 of claims 7 and 27 and lines 2-3 of claim 18 claim language "at least one of graphics and text" is unclear as to whether applicant is claiming the device to print graphics or text or if applicant is claiming the device print both graphics and text.

Appropriate correction is required.

4. Claim 23 is objected to because of the following informalities:

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Lines 4-5 and 7-8 claim language “at least one of a dimension to and a dimension of the first object” is unclear as to what is meant by “a dimension to and a dimension of,” what is meant by “at least one of,” and claim language appears to be redundant.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-6, 8-17, 19-26, and 28-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Coulter et al. (U. S. Patent No. 4,233,749).

Coulter et al. teaches a measurement and marking device (Fig. 3), comprising: a housing (Fig. 3); a positional sensing assembly (16 and 18) mounted in the housing and adapted to sense a position of the housing relative to an object as the housing is moved along a surface of the object; a printhead assembly (24) mounted in the housing and adapted to print on the surface of the object as the housing is moved along the surface of the object; and a controller (10 and 34) mounted in the housing and communicating with the positional sensing assembly and the printhead assembly to print a mark on the surface of the object based on the position of the housing relative to the object as the housing is moved along the surface of the object.

Coulter et al. teaches the measurement and marking device wherein the positional sensing assembly is adapted to sense a position of the housing relative to a first object and measure a dimension of the first object as the housing is moved along a surface of the first object (Col 5,

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line 60-Col 6, line 32), wherein the positional sensing assembly is adapted to sense a position of the housing relative to a second object as the housing is moved along a surface of the second object (Col 5, lines 11-57), and wherein the controller is adapted to operate the printhead assembly to print a mark on the surface of the second object based on the dimension of the first object and the position of the housing relative to the second object as the housing is moved along the surface of the second object (Col 2, lines 65-68 and Col 5, lines 11-57).

Coulter et al. teaches the measurement and marking device comprising: a user interface (28 and 32) mounted on the housing and communicating with the controller (Col 3, lines 28-41), wherein the user interface includes an input configured for operation by a user (Col 2, lines 31-38) of the measurement marking device, wherein the controller is adapted to record the position of the housing relative to the first object when the input is operated by the user (Col 5, lines 26-28).

Coulter et al. teaches the measurement and marking device wherein the controller is adapted to operate the printhead assembly to print the mark (Col 2, lines 39-47) on the surface of the second object based on the position of the housing relative to the first object when the input is operated by the user and the position of the housing relative to the second object as the housing is moved along the surface of the second object (Col 5, lines 11-52).

Coulter et al. teaches the measurement and marking device wherein the controller is adapted to operate the printhead assembly to print a plurality of markings on the surface of the object at predetermined intervals as the housing is moved along the surface of the object (Col 5, lines 11-13).

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Coulter et al. the measurement and marking device wherein the plurality of markings represent one of standard measurements and scaled measurements (Col 2, lines 39-47).

Coulter et al. teaches the measurement and marking device wherein the positional sensing assembly includes a wheel rotatably mounted in the housing, wherein the wheel is adapted to contact the surface of the object and rotate as the housing is moved along the surface of the object, and wherein the controller is adapted to determine the position of the housing relative to the object based on rotation of the wheel (Col 6, lines 19-29).

Coulter et al. teaches the measurement and marking device wherein the positional sensing assembly includes an optical sensor (18) mounted in the housing, wherein the optical sensor is adapted to sense the surface of the object as the housing is moved along the surface of the object, and wherein the controller is adapted to determine the position of the housing relative to the object based on the surface of the object (Col 2, lines 52-60).

Coulter et al. teaches the measurement and marking device wherein the housing has a first side (12) adapted to be oriented substantially parallel with the surface of the object as the housing is moved along the surface of the object (Col 2, lines 48-50).

Coulter et al. teaches the measurement and marking device wherein the printhead assembly communicates with the first side of the housing (Col 2, lines 65-67).

Coulter et al. teaches the measurement and marking device wherein the printhead assembly includes a plurality of orifices (53) formed in a front face thereof, wherein the front face communicates with the first side of the housing (Col 6, lines 35-53).

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Coulter et al. teaches the measurement and marking device comprising a power supply (30) mounted in the housing, wherein the power supply supplies power to the measurement and marking device.

Coulter et al. teaches the method of printing a measurement marking on an object comprising: moving a housing along a surface of the object; sensing a position of the housing relative to the object; and printing the measurement marking on the surface of the object when the position of the housing relative to the object corresponds to a predetermined position (Col 1, lines 41-52 and Col 7, lines 33-66).

Coulter et al. teaches the method of printing a measurement marking wherein the step of printing the measurement marking on the surface of the object includes printing a plurality of measurement markings on the surface of the object at predetermined intervals (Col 7, lines 33-66).

Coulter et al. teaches the method of printing a measurement marking wherein printing the plurality of measurement markings includes printing one of standard length units and a plurality of scaled length units on the surface of the object (Col 7, lines 33-66 and Col 8, lines 20-26 and Col 2, lines 44-47).

Coulter et al. teaches the method of printing a measurement marking wherein the step of printing the measurement marking on the surface of the object includes printing the measurement marking with a printhead assembly mounted in the housing (Col 6, line 35-53).

Coulter et al. teaches the method of printing a measurement marking comprising the step of: receiving and storing the predetermined position of the housing for printing the measurement marking at a controller mounted within the housing (Col 2, lines 30-38 and Col 7, lines 33-40).

Coulter et al. teaches the method of printing a measurement marking wherein the step of moving the housing along the surface of the object includes contacting the surface of the object with a wheel rotatably mounted in the housing and rotating the wheel relative to the housing, and wherein the step of sensing the position of the housing includes determining the position of the housing relative to the object based on rotation of the wheel Col 6, lines 19-29 and Col 3, lines 19-21).

Coulter et al. teaches the method of printing a measurement marking wherein the step of moving the housing along the surface of the object includes sensing the surface of the object with an optical sensor mounted in the housing, and wherein the step of sensing the position of the housing includes determining the position of the housing relative to the object based on the surface of the object (Col 2, lines 52-65 and Col 7, lines 55-66).

With respect to claims 22-26 and 28-29, the method of transferring a measurement of a first object to a second object, although not explicitly stated by Coulter et al., is included in the teachings of Coulter et al. wherein the first object may either be the data received and stored defining the preselected distance measurements (Col 2, lines 39-47) or the value obtained and stored from using the apparatus as a measuring and sensing device (Col 6, lines 19-29 and Col 5, lines 15-17 and lines 36-41).

Coulter et al. teaches the method of transferring a measurement of a first object to a second object comprising moving the housing along a surface of the second object; sensing a position of the housing relative to the second object as the housing is moved along the surface of the second object; and printing a mark representing the feature of the first object on the surface of the second object when the position of the housing relative to the second object coincides with

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the position of the housing at the feature of the first object (Col 2, lines 39-47 and Col 2, line 65-Col 3, line 9).

Coulter et al. teaches the method of transferring a measurement of a first object to a second object wherein sensing the position of the housing relative to the first object includes measuring a dimension of the first object, wherein the step of locating the feature of the first object includes measuring a dimension of the first object (Col 5, lines 17-52) and wherein the step of printing the mark on the surface of the second object includes printing the mark on the surface of the second object when the position of the housing relative to the second object coincides with the dimension of the first object (Col 1, lines 42-52).

Coulter et al. teaches the method of transferring a measurement of a first object to a second object wherein the step of locating the feature of the first object includes receiving a user input at the position of the housing at the feature of the first object (Col 5, lines 15-52).

Coulter et al. teaches the method of transferring a measurement of a first object to a second wherein recording the position of the housing at the feature of the first object includes storing the position of the housing at the feature of the first object with the user input in a controller mounted in the housing (Col 7, lines 33-66).

Coulter et al. teaches the method of transferring a measurement of a first object to a second wherein the step of printing the mark on the surface of the second object includes printing the mark on the surface of the second object with a printhead assembly (24) mounted in the housing (Col 6, lines 35-53).

Coulter et al. teaches the method of transferring a measurement of a first object to a second wherein the steps of moving the housing along the surface of the first object and the

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surface of the second object each include contacting the surface of the first object and the surface of the second object with a wheel rotatably mounted in the housing and rotating the wheel, wherein the steps of sensing the position of the housing relative to the first object and the second object each include determining the position of the housing relative to the first object and the second object based on rotation of the wheel (Col 6, 19-29).

Coulter et al. teaches the method of transferring a measurement of a first object to a second wherein the steps of moving the housing along the surface of the first object and the surface of the second object each include sensing the surface of the first object and the surface of the second object with an optical sensor (18) mounting in the housing, and wherein the steps of sensing the position of the housing relative to the first object and the second object each include determining the position of the housing relative to the first object and the second object based on the surface of the first object and the surface of the second object, respectively (Col 2, lines 52-64 and Col 6, lines 19-29).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 7, 18, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coulter et al. in view of Weber et al. (U. S. Patent No. 4,412,232).

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Coulter et al. discloses the measurement and marking device, the method of printing a measurement marking, and the method of transferring a measurement of a first object to a second as described above in paragraph 6.

Coulter et al. does not disclose that the measurement and marking device, the method of printing a measurement marking, and the method of transferring a measurement of a first object to a second comprise a printhead assembly wherein the printhead assembly is adapted to print at least one of graphics and text.

Weber et al. discloses a hand-held ink jet printer (10) wherein the printhead assembly (17) is adapted to print at least one of graphics and text (14 and Fig. 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the measurement and marking device of Coulter et al. to include a printhead assembly which could mark measurements and print text, as taught by Weber et al., so that a user could print a letter, number, or text along with the measurement mark to more clearly indicate and distinguish the mark.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents disclose measurement and/or printing devices Morita et al. (U. S. Patent No. 4,383,301), Houck (U. S. Patent No. 4,275,264), Cheng (U. S. Patent No. 5,577,330), Hirose (U. S. Patent No. 6,338,555), Headrick et al. (U. S. Patent No. 6,347,868), and Katayama et al. (U. S. Patent No. 5,842,793).

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy R Cohen whose telephone number is (703) 305-4972. The examiner can normally be reached on 8 am - 5 pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on (703) 308-3875. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3431.

ARC

August 21, 2002


Sua **CHRISTOPHER W. FULTON**
PRIMARY EXAMINER
Diego Gutierrez
Supervisory Examiner
Tech Center 2800